

REMARKS

Applicants have received and reviewed an Office Action mailed to September 24, 2002. By way of response, Applicants have amended the specification, canceled claims 2, 3, 5, 17, 24, 25, and 27 without prejudice, and amended claims 1, 6, 19, and 28. Claims 1, 6-16, 19-23, and 28-39 are pending. No new matter is presented. Applicants submit the amended and newly presented claims are supported by the specification.

The specification was amended solely to explicitly add the words of original claims 6 and 18 into the specification.

For the reasons given below, Applicants submit the amended and newly presented claims are in condition for allowance and notification to that effect is earnestly solicited.

Rejection of Claims Under § 112, First Paragraph

The Examiner rejected claims 1-3, 5-17, 19-25, and 27-37 under 35 U.S.C. § 112, first paragraph. The Examiner objected to a phrase employed in the claims.

In particular, the Examiner objected to use of the phrase "comprises at least 2 polyols" in the previous claims. The claims as amended do not include the phrase objected to by the Examiner. This phrase was removed for reasons unrelated to this rejection. Therefore, it is believed that this rejection does not apply to the amended claims.

Accordingly, it is believed that the amended and newly presented claims fully comply with § 112, first paragraph, and withdrawal of this rejection is respectfully requested.

Rejection of Claims Under § 103(a)

The Examiner rejected claims 1-3, 5-17, 19-25, and 27-37 under 35 U.S.C. § 103(a) as obvious over the Andrews (5,569,461) and Kubara (5,208,257) references in view of the Kross (WO 00/13506) reference. Applicants respectfully traverse this rejection.

The presently pending independent claims recite "an antimicrobial component consisting essentially of heptanoic acid". As such, these claims exclude additional components that make a significant contribution to antimicrobial activity. In contrast, each of the references cited in this rejection disclose antimicrobial components that require significant active ingredients other than heptanoic acid.

For example, the Andrews reference and the Kubara reference each disclose an antimicrobial composition that requires for its antimicrobial activity certain propylene glycol fatty acid esters. The presently claim compositions do not include such propylene glycol fatty acid esters. Neither of the cited references disclose that heptanoic acid is sufficient as an antimicrobial agent. Quite the contrary, they teach that other antimicrobial agents are required. The secondary reference does not remedy the shortcomings of the primary references. Therefore, the cited references either alone or in combination fail to teach or suggest the presently claimed compositions.

Accordingly, based on the foregoing differences, it is submitted that the references cited in the rejection neither teach nor suggest the presently claimed compositions and methods, and withdrawal of this rejection is respectfully requested.

Summary

In summary, each of claims 1, 6-16, 19-23, and 28-39 is in condition for allowance and notification to that effect is earnestly solicited.

The Examiner is invited to contact Applicants undersigned representative, at the telephone number listed below, if the Examiner believes that doing so will advance prosecution.

Respectfully submitted,
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Date: Dec 23, 2002



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification

Paragraph beginning at page 11, line 17 has been amended as follows:

The carrier medium of a composition of the invention can generally be an aqueous medium such as water, or an organic liquid such as an oil, a surfactant, an alcohol or polyol, an ester, an ether, or an organic or aqueous mixture of any of these. The carrier medium includes high concentrations of non-aqueous, preferably water miscible liquids or soluble solids that act as a freezing point depressant component for the composition. Preferred freezing point depressant components also have some degree of skin conditioning properties, and provide protection against the adverse affects of frigid weather. Examples of preferred freezing point depressant components include polyols, and mixtures thereof. Preferred polyols include propylene glycol; glycerin; sorbitol; and homologs, homopolymers and derivatives thereof and mixtures thereof. In an embodiment, the freezing point depressant component is a mixture of propylene glycol and glycerin. Preferably, the freezing point depressant component of the carrier medium make up greater than 60%, in some embodiments, greater than 65%, in some other embodiments, greater than 70%, and in yet other embodiments, greater than 75% by weight of the total composition.

Paragraph beginning at page 13, line 7 has been amended as follows:

Fatty acids suitable for a composition of the present invention include C_n - C_{12} fatty acids. Preferred fatty acids have a chain length from about C_7 - C_9 . One particularly preferred fatty acid is heptanoic acid that has seven carbon atoms, including the carboxyl group, and has a pKa of 4.4. In addition to its preferred water solubility, heptanoic acid is not significantly irritating to the tissues. In an embodiment, the antimicrobial component consists essentially of heptanoic acid.

In the Claims

Claims 2, 3, 5, 17, 24, 25, and 27 have been cancelled without prejudice.

Claims 1, 6, 19, and 28 have been amended as follows

1. (Twice Amended) An antimicrobial composition comprising:
in the range of 0.01 to 5 wt. % of [a C6-C12 fatty acid] an antimicrobial component
consisting essentially of heptanoic acid; and
greater than 60 wt. % of a freezing point depressant component comprising propylene
glycol and glycerin
[a carrier medium including a freezing point depressant component,
wherein the freezing point depressant component:
 - a) comprises at least 2 polyols; and
 - b) makes up greater than 60 wt. % of the total composition].
6. (Amended) The antimicrobial composition of claim [5] 1, wherein the freezing point depressant component [is] consists of a mixture of propylene glycol and glycerin.
19. (Thrice Amended) A method for controlling mastitis in milk producing animals, the method comprising:
applying an antimicrobial composition to a teat of an animal, wherein the antimicrobial composition comprises: [in the range of 0.01 to 5 wt. % of a C6-C12 fatty acid and a carrier medium including a freezing point depressant component, wherein the freezing point depressant component comprises at least 2 polyols and makes up greater than 60 wt. % of the composition]
in the range of 0.01 to 5 wt. % of an antimicrobial component consisting
essentially of heptanoic acid; and
greater than 60 wt. % of a freezing point depressant component comprising
propylene glycol and glycerin.
28. (Amended) The method of claim [27] 19, wherein, wherein the freezing point depressant component [is] consists of a mixture of propylene glycol and glycerin.

Please add and consider claims 38 and 39 as follows.

New claims 38 and 39 have been added.